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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/669,403 | 09/24/2003 | Viacheslav A. Petrov | UC0315 US NA | 5058 |

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E I DU PONT DE NEMOURS AND COMPANY
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WILMINGTON, DE 19805

| EXAMINER | |
|---|---|
| VIJAYAKUMAR, KALLAMBELLA M | |
| **ART UNIT** | **PAPER NUMBER** |
| 1751 | |

DATE MAILED: 04/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/669,403 | PETROV ET AL. | |
| | Examiner | Art Unit | |
| | Kallambella Vijayakumar | 1751 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *20 January 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *15,22 and 23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *15,22 and 23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

## DETAILED ACTION

Claims 15 and 22-23 are currently pending with the application. New claim 23 was added with the response filed 01/20/2006.

Applicant's arguments filed 01/20/2006 have been fully considered but they are not persuasive to overcome the rejection of claim 15 under 35 USC 102(b) as anticipated by Babb et al (US 5,730,922). Applicants argument that the prior art does not teach the use of monomers in combination with an active material as required by the instant claim limitation is not persuasive (Response, Page-6) because, the prior art teaches use of monomers (Col-14, Ln-60-65; Col-15, Ln 57-61) and the semiconducting oxides such as titania, potassium titanate and barium titanate (Col-13, Ln 33-36; Col-15, Ln 30-35) <active materials> that meets the limitation of instant claim, because the applicants define the active materials to include electrically conductive and semiconductive materials (Specification: Page-3, Para-1). The rejection of claim-15 under 35 USC 102(b) as anticipated by Babb et al (US-922) as cited in the last office action is maintained for the above reasons.

The indicated allowability of claim 22 is withdrawn in view of the newly discovered reference(s) to Poetsch et al (US 5,196,140). Rejections based on the newly cited reference(s) follow.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 15 and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Poetsch et al (US 5,196,140).

The use of phrase "for depositing an active material on to a surface" in the claims have not been treated with patentability. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See In re Casey, 152 USPQ 235 (CCPA 1967) and In re Otto, 136 USPQ 458, 459 (CCPA 1963).

Poetsch et al teach an electro-optical liquid crystal display element comprising at least two liquid-crystalline components (active materials) and a dielectric such as 4-methtyl-1-(1,1,2,2-tetrafluroethoxy)-benzene (Abstract, Col-17, Ln 39-48). All the limitations of the instant claims are met.

The reference is anticipatory.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

1. Claim 22 rejected under 35 U.S.C. 103(a) as being unpatentable over Poetsch et al (US 5,196,140).

Poetsch et al teach an electro-optical liquid crystal display (LCD) element comprising a dielectric such as 4-methyl-1-(1,1,2,2-tetrafluroethoxy)-benzene (Abstract, Col-17, Ln 39-48) and at least two liquid-crystalline components (active material). The prior art further teaches a dielectric composition R1-A2-R2 (Formula 1b), wherein R1 and R2 are C2-C12 alkyl or alkoxy groups, and at least one of R1 and R2 being a C1-C15 perfluoroalkyl and A2 being a phenyl group (Col-2, Ln 46-Col-4, Ln 6; Col-5, Ln 27-Col-8, Ln 68; Col-17, Ln 39-48), and its advantages with clear point of the liquid crystal display without the need of viscosity modifiers (Col-2, Ln 10-23).

The prior art fails to disclose the specific perfluoro compounds in the LCD composition.

It would be obvious to a person of ordinary skill in the art to optimize the LCD element of the prior art by substituting the alkyl group in the perfluoro containing dielectric composition with an alkoxy group to benefit from better functionality of the LCD element with improved clear point, because the prior art teaches that the LCD dielectrics could be modified to suit the application needs by altering dielectric anisotropy or viscosity (Col-16, Ln 31-55). The LCD dielectric composition containing compounds taught by the prior art containing the specific alkoxy groups show structural similarity with the instant claimed composition, and have similar utility as electro-optic compounds, wherein the composition in instant claim 22 is prima facie obvious over the compositions of Poetsch.

***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 15 and 23 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-5 of copending Application No. 10/669404. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instant claims are drawn to compositions containing an active material and specific substituted perfluoro-aromatic compounds, while the claims in copending application are drawn to a solution containing organic active materials that are encompassed by active materials and specific substituted perfluoro-aromatic compounds that are similar, and the presence of a solvent in the coating composition per the copending application would be obvious.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kallambella Vijayakumar whose telephone number is 571-272-1324. The examiner can normally be reached on 8-5.30 Mon-Thu, 8-4.30 Alt Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas McGinty can be reached on 571-272-1029. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KMV
March 28, 2006.

Douglas McGinty

DOUGLAS MCGINTY
SUPERVISORY PATENT EXAMINER
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